

## AUTHOR INDEX

- Aird, E., see Dische, S., 287  
Aragon, G., see Romero Fernández, J., 27
- Barbet, N., see Carrie, C., 301  
Bartelink, H., see Bel, A., 253  
Bartelink, H., see Horiot, J.-C., 103  
Bartelink, H., see Horiot, J.C., 81  
Beauvais, H., Bridier, A. and Dutreix, A.  
    Characteristics of contamination electrons in high energy  
    photon beams, 308  
Bel, A., see van Herk, M., 221  
Bel, A., van Herk, M., Bartelink, H. and Lebesque, J.V.  
    A verification procedure to improve patient setup accuracy  
    using portal images, 253  
Bernier, J., see Hansson, U., 85  
Bernier, J., see Horiot, J.-C., 103  
Bernier, J., see Horiot, J.C., 81  
Bessell, E.M., Taylor, J., Moloney, A.J. and Lemberger, J.  
    Regression of transitional cell carcinoma of the bladder  
    with radiotherapy: progression-free control in the bladder  
    at 5 years, 344  
Biron, P., see Carrie, C., 301  
Blay, J.Y., see Carrie, C., 301  
Bleeker, J.C., see Tjho-Heslinga, R.E., 33  
Boersma, L.J., Damen, E.M.F., de Boer, R.W., Muller, S.H.,  
    Valdés Olmos, R.A., Hoefnagel, C.A., Roos, C.M., van  
    Zandwijk, N. and Lebesque, J.V.  
    A new method to determine dose-effect relations for local  
    lung-function changes using correlated SPECT and CT  
    data, 110  
Bolla, M., see Troccaz, J., 176  
Bortfeld, T., see Gademann, G., 205  
Bortfeld, T., see Schlegel, W., 197  
Bouffet, E., see Carrie, C., 301  
Brahme, A., see Söderström, S., 148  
Bret, P., see Carrie, C., 301  
Bridier, A., see Beauvais, H., 308  
Bridier, A., see Van Dam, J., 91  
Brunat-Mentigny, M., see Carrie, C., 301  
Brunie, L., Lavallée, S., Troccaz, J., Cinquin, P. and Bolla, M.  
    Pre- and intra-irradiation multimodal image registration,  
    244  
Bucciolini, M., see Cionini, L., 230  
Burman, C., see Ling, C.C., 129
- Calandrino, R., see Fiorino, C., 336  
Carde, P., see Tubiana, M., 1  
Cardenes, H., see Romero Fernández, J., 27  
Carrie, C., Lasset, C., Blay, J.Y., Négrier, S., Bouffet, E.,  
    Barbet, N., Montbarbon, X., Wagner, J.P., Lapras, C.,  
    Deruty, R., Mottolese, C., Sindou, M., Bret, P., Lacroze,  
    M., Mornex, F., Brunat-Mentigny, M. and Biron, P.  
    Medulloblastoma in adults: survival and prognostic fac-  
    tors, 301  
Cattaneo, G.M., see Fiorino, C., 336  
Chavaudra, J., see Dutreix, A., 97  
Chervjakov, A., see Kosunen, A., 327  
Chiang, C.S., McBride, W.H. and Withers, H.R.  
    Radiation-induced astrocytic and microglial responses in  
    mouse brain, 60  
Chierego, G., Francescon, P., Colombo, F. and Pozza, F.  
    From radiotherapy to stereotactic radiosurgery: physical  
    and dosimetrical considerations, 214  
Chow, M., see Mayles, W.P.M., 184  
Chow, M., see Tait, D.M., 117  
Chui, C.S., see Ling, C.C., 129  
Cinquin, P., see Troccaz, J., 176  
Cinquin, P., see Brunie, L., 244  
Cinquin, P., see van Herk, M., 269  
Cionini, L., see van Herk, M., 269  
Cionini, L. and Bucciolini, M.  
    Role of portal imaging in clinical radiotherapy: Florence  
    experience, 230  
Colombo, F., see Chierego, G., 214  
Cosset, J.M., see Weltens, C., 18  
Cromheecke, M., Mehta, D.M., Sleijfer, D.Th., Molenaar,  
    W.M., Schraffordt Kooops, H. and Hoekstra, H.J.  
    The ultimate effect of intraoperative radiotherapy (IORT)  
    on an irresectable retroperitoneal recurrence of a non-  
    seminomatous testicular tumour, 352
- Dal Soglio, S., see Troccaz, J., 176  
Damen, E.M.F., see Boersma, L.J., 110  
Davelaar, J., see Tjho-Heslinga, R.E., 33  
de Boer, R.W., see Boersma, L.J., 110  
de Vroome, H., see Tjho-Heslinga, R.E., 33  
Dearnaley, D.P., see Tait, D.M., 117  
Debus, J., see Gademann, G., 205  
del Vecchio, A., see Fiorino, C., 336  
Derreumaux, S., see Dutreix, A., 97  
Deruty, R., see Carrie, C., 301  
Desbat, L., see Troccaz, J., 176  
Dische, S., Saunders, M.I., Williams, C., Hopkins, A. and  
    Aird, E.  
    Precision in reporting the dose given in a course of  
    radiotherapy, 287  
Dito, J.J., see Hulshof, M.C.C.M., 94  
Dreissen, J.J.R., see Hulshof, M.C.C.M., 294

- Dusserre, A., see Troccaz, J., 176
- Dutreix, A., see Beauvais, H., 308
- Dutreix, A., see Weltens, C., 18
- Dutreix, A., van der Schueren, E., Derreumaux, S. and Chavaudra, J.  
Preliminary results of a quality assurance network for radiotherapy centres in Europe, 97
- Dyer, J., see Mayles, W.P.M., 184
- El-Gayed, A.A.H., see Gilhuijs, K.G.A., 261
- Ermakov, I., see Kosunen, A., 327
- Eschwege, F., see Weltens, C., 18
- Essers, M., Lanson, J.H. and Mijnheer, B.J.  
In vivo dosimetry during conformal therapy of prostatic cancer, 271
- Fernandez, E.M., see Mayles, W.P.M., 184
- Feroldi, P., see Galelli, M., 352
- Fiorino, C., del Vecchio, A., Cattaneo, G.M., Fusca, M., Longobardi, B., Signorotto, P. and Calandrino, R.  
Exit dose measurements by portal film dosimetry, 336
- Fowler, J.F.  
Time-variable dose rate in HDR stepping source brachytherapy, 352
- Francescon, P., see Chierego, G., 214
- Frindel, E., see Tubiana, M., 1
- Fuks, Z., see Ling, C.C., 129
- Fuks, Z., Horwich, A.  
Clinical and technical aspects of conformal therapy, 219
- Fusca, M., see Fiorino, C., 336
- Gademann, G., Schlegel, W., Debus, J., Schad, L., Bortfeld, T., Köver, K.H., Lorenz, W.J. and Wannenmacher, M.  
Fractionated stereotactically guided radiotherapy of head and neck tumors: a report on clinical use of a new system in 195 cases, 205
- Gademann, G., see Schlegel, W., 197
- Galelli, M., Feroldi, P.  
Reply to the letter by Prof. J.F. Fowler, 352
- Gama Afonso, J., see Gaspar, L., 45
- Garavaglia, G.  
The role of in vivo dosimetry, 281
- Gaspar, L., Mascarenhas, F., Sá da Costa, M., Schaller Dias, J., Gama Afonso, J. and Silvestre, M.E.  
Radiation therapy in the unresectable cavernous hemangioma of the liver, 45
- Gérard, J.P., Ling, C.C.  
Biophysical modelling: implications for conformation radiation treatment, 165  
Introduction: High dose-high precision in radiation oncology, 167
- Gilhuijs, K.G.A., El-Gayed, A.A.H., van Herk, M. and Vijlbrief, R.E.  
An algorithm for automatic analysis of portal images: clinical evaluation for prostate treatments, 261
- Gilhuijs, K.G.A., see van Herk, M., 221
- Gilhuijs, K., see van Herk, M., 269
- Goitein, M., see Niemierko, A., 140
- González González, D., see Hulshof, M.C.C.M., 294
- Gustafsson, A., see Söderström, S., 148
- Hansson, U., Johansson, K.-A., Horiot, J.C. and Bernier, J.  
Mailed TL-dosimetry programme for machine output check and clinical application in the EORTC radiotherapy group, 85
- Hansson, U., see Van Dam, J., 91
- Heijmans, H.J., Mehta, D.M., Kleibeuker, J.H., Sluiter, W.J., Oldhoff, J. and Hoekstra, H.J.  
Intraoperative irradiation of the canine pancreas: short-term effects, 347
- Heisig, S., see Mayles, W.P.M., 184
- Hendry, J.H., see Roberts, S.A., 69
- Hoefnagel, C.A., see Boersma, L.J., 110
- Hoekstra, H.J., see Cromheecke, M., 352
- Hoekstra, H.J., see Heijmans, H.J., 347
- Hopkins, A., see Dische, S., 287
- Horiot, J.-C.  
Hyperfractionation is better under well specified circumstances, 356
- Horiot, J.-C., Bernier, J., Johansson, K.-A., van der Schueren, E. and Bartelink, H.  
Minimum requirements for quality assurance in radiotherapy, 103
- Horiot, J.C., see Hansson, U., 85
- Horiot, J.C., van der Schueren, E., Johansson, K.-A., Bernier, J. and Bartelink, H.  
The programme of quality of the EORTC radiotherapy group. A historical overview, 81
- Horwich, A., see Fuks, Z., 219
- Horwich, A., see Tait, D.M., 117
- Hounsell, A.R., Marrs, J.E., Moore, C.J., Sharrock, P.J., Shaw, A.J., Wilkinson, J.M. and Williams, P.C.  
High technology to simplify the planning and delivery of radiotherapy, 192
- Huizenga, H., see Woudstra, E., 39
- Hulshof, M.C.C.M., Menten, J., Dito, J.J., Dreissen, J.J.R., van den Bergh, R. and González González, D.  
Treatment results in primary intraspinal gliomas, 294
- Jackson, A., see Ling, C.C., 129
- Järvinen, H., see Kosunen, A., 327
- Johansson, K.-A., see Van Dam, J., 91
- Johansson, K.-A., see Garavaglia, G., 281
- Johansson, K.-A., see Hansson, U., 85
- Johansson, K.-A., see Horiot, J.-C., 103
- Johansson, K.-A., see Horiot, J.C., 81
- Kaanders, J.H.A.M. and van der Maazen, R.W.M.  
A convenient and reliable method for carbogen breathing in man, 341
- Kakebeeke-Kemme, H.M., see Tjho-Heslinga, R.E., 33
- Karlsson, M. and Zackrisson, B.  
Matching of electron and photon beams with a multi-leaf collimator, 317
- Kirby, M.C., Williams, P.C.  
Measurement possibilities using an electronic portal imaging device, 237
- Kleibeuker, J.H., see Heijmans, H.J., 347
- Knight, R.T., see Mayles, W.P.M., 184
- Kosunen, A., Järvinen, H., Vatnitskij, S., Ermakov, I., Chervjakov, A., Kulmala, J., Pitkänen, M., Väyrynen, T. and Väänänen, A.



- Intercomparison of radiotherapy treatment planning systems for external photon and electron beam dose calculations, 327
- Köver, K.H., see Gademann, G., 205
- Kulmala, J., see Kosunen, A., 327
- Kutcher, G.J., see Ling, C.C., 129
- la Torre, A., see Romero Fernández, J., 27
- Lacroze, M., see Carrie, C., 301
- Laieb, N., see Troccaz, J., 176
- Landberg, T., Nilsson, M.  
Variability of dose specification in external beam therapy, 285
- Lanson, J.H., see Essers, M., 271
- Lapras, C., see Carrie, C., 301
- Lasset, C., see Carrie, C., 301
- Lavallée, S., see Brunie, L., 244
- Lebesque, J.V., see Bel, A., 253
- Lebesque, J.V., see Boersma, L.J., 110
- Leer, J.W.H., see Tjho-Heslinga, R.E., 33
- Leibel, S., see Ling, C.C., 129
- Lemberger, J., see Bessell, E.M., 344
- Leunens, G., Menten, J., Weltens, C., Verstraete, J. and van der Schueren, E.  
Quality assessment of medical decision making in radiation oncology: variability in target volume delineation for brain tumours, 169
- Leunens, G., see Weltens, C., 18
- Leunens, G., see Garavaglia G., 281
- Ling, C.C., Burman, C., Chui, C.S., Jackson, A., Kutcher, G.J., Leibel, S., LoSasso, T., Mageras, G., Mohan, R., Yorke, E. and Fuks, Z.  
Perspectives of multidimensional conformal radiation treatment, 129
- Longobardi, B., see Fiorino, C., 336
- Lorenz, W.J., see Gademann, G., 205
- LoSasso, T., see Ling, C.C., 129
- Magallon, R., see Romero Fernández, J., 27
- Mageras, G., see Ling, C.C., 129
- Maier-Borst, W., see Schlegel, W., 197
- Marrs, J.E., see Hounsell, A.R., 192
- Mascarenhas, F., see Gaspar, L., 45
- Mayles, W.P.M., Chow, M., Dyer, J., Fernandez, E.M., Heisig, S., Knight, R.T., Moore, I., Nahum, A.E., Shentall, G.S. and Tait, D.M.  
The Royal Marsden Hospital pelvic radiotherapy trial: technical aspects and quality assurance, 184
- Mayles, W.P.M., see Tait, D.M., 117
- McBride, W.H., see Chiang, C.S., 60
- Mehta, D.M., see Cromheecke, M., 352
- Mehta, D.M., see Heijmans, H.J., 347
- Menguy, Y., see Troccaz, J., 176
- Menke, M., see Schlegel, W., 197
- Menten, J., see Hulshof, M.C.C.M., 294
- Menten, J., see Leunens, G., 169
- Mijnheer, B.J., see Essers, M., 271
- Mijnheer, B.J., see Garavaglia G., 281
- Mohan, R., see Ling, C.C., 129
- Mohiuddin, M., see Rudoltz, M.S., 352
- Molenaar, W.M., see Cromheecke, M., 352
- Moloney, A.J., see Bessell, E.M., 344
- Montbarbon, X., see Carrie, C., 301
- Moore, C.J., see Hounsell, A.R., 192
- Moore, I., see Mayles, W.P.M., 184
- Mornex, F., see Carrie, C., 301
- Mottolèse, C., see Carrie, C., 301
- Muller, S.H., see Boersma, L.J., 110
- Nahum, A.E., see Mayles, W.P.M., 184
- Nahum, A.E., see Tait, D.M., 117
- Négrier, S., see Carrie, C., 301
- Nielsen, O.S., Safwat, A., Overgaard, J.  
The effect of sequence and time interval between cyclophosphamide and total body irradiation on lung and bone marrow damage following bone marrow transplantation in mice, 51
- Niemierko, A. and Goitein, M.  
Implementation of a model for estimating tumor control probability for an inhomogeneously irradiated tumor, 140
- Nilsson, M., see Landberg, T., 285
- Oldhoff, J., see Heijmans, H.J., 347
- Oosterhuis, J.A., see Tjho-Heslinga, R.E., 33
- Overgaard, J., see Nielsen, O.S., 51
- Pastyr, O., see Schlegel, W., 197
- Pitkänen, M., see Kosunen, A., 327
- Pozza, F., see Chierego, G., 214
- Regueiro, C., see Romero Fernández, J., 27
- Rigby, L., see Tait, D.M., 117
- Roberts, S.A. and Hendry, J.H.  
The delay before onset of accelerated tumour cell repopulation during radiotherapy: a direct maximum-likelihood analysis of a collection of worldwide tumour-control data, 69
- Romero Fernández, J., Cardenas, H., la Torre, A., Valcarcel, F., Magallon, R., Regueiro, C. and Aragon, G.  
Chordoma: results of radiation therapy in eighteen patients, 27
- Roos, C.M., see Boersma, L.J., 110
- Rudoltz, M.S., Mohiuddin, M.  
Is hyperfractionation really better?, 352
- Sá da Costa, M., see Gaspar, L., 45
- Safwat, A., see Nielsen, O.S., 51
- Saunders, M.I., see Dische, S., 287
- Schad, L., see Gademann, G., 205
- Schaller Dias, J., see Gaspar, L., 45
- Schlegel, W., Pastyr, O., Bortfeld, T., Gademann, G., Gardey, K., Menke, M. and Maier-Borst, W.  
Stereotactically guided fractionated radiotherapy: Technical aspects, 197
- Schlegel, W., see Gademann, G., 205
- Schraffordt Koops, H., see Cromheecke, M., 352
- Sernbo, G., see Van Dam, J., 91
- Sharrock, P.J., see Hounsell, A.R., 192
- Shaw, A.J., see Hounsell, A.R., 192
- Shentall, G.S., see Mayles, W.P.M., 184
- Signorotto, P., see Fiorino, C., 336

- Silvestre, M.E., see Gaspar, L., 45  
 Sindou, M., see Carrie, C., 301  
 Sleijfer, D.Th., see Cromheecke, M., 352  
 Sluiter, W.J., see Heijmans, H.J., 347  
 Söderström, S., Gustafsson, A. and Brahme, A.  
   The clinical value of different treatment objectives and degrees of freedom in radiation therapy optimization, 148  
 Swindell, W., see van Herk, M., 269
- Tait, D.M., Nahum, A.E., Rigby, L., Chow, M., Mayles, W.P.M., Dearnaley, D.P. and Horwich, A.  
   Conformal radiotherapy of the pelvis: assessment of acute toxicity, 117  
 Tait, D.M., see Mayles, W.P.M., 184  
 Taylor, J., see Bessell, E.M., 344  
 Tjho-Heslinga, R.E., Kakebeeke-Kemme, H.M., Davelaar, J., de Vroome, H., Bleeker, J.C., Oosterhuis, J.A. and Leer, J.W.H.  
   Results of ruthenium irradiation of uveal melanoma, 33  
 Troccaz, J., Menguy, Y., Bolla, M., Cinquin, P., Vassal, P., Laieb, N., Desbat, L., Dusserre, A. and Soglio, S.D.  
   Conformal external radiotherapy of prostatic carcinoma: requirements and experimental results, 176  
 Troccaz, J., see Brunie, L., 244  
 Tubiana, M., Carde, P. and Frindel, E.  
   Ways of minimising hematopoietic damage induced by radiation and cytostatic drugs - The possible role of inhibitors, 1
- Väänänen, A., see Kosunen, A., 327  
 Valcarcel, F., see Romero Fernández, J., 27  
 Valdés Olmos, R.A., see Boersma, L.J., 110  
 Van Dam, J., Johansson, K.-A., Bridier, A., Sernbo, G. and Hansson, U.  
   EORTC radiotherapy group quality assurance: mechanical checks and beam alignments of megavoltage equipment, 91  
 van de Poel, J.A., see Woudstra, E., 39  
 van den Bergh, R., see Hulshof, M.C.C.M., 294  
 van der Kogel, A.J.  
   Dose-volume effects in the spinal cord, 105  
 van der Kogel, A.J.  
   Radiobiological and clinical data on dose/volume effect relationships in normal tissues, 127
- van der Maazen, R.W.M., see Kaanders, J.H.A.M., 341  
 van der Schueren, E., see Dutreix, A., 97  
 van der Schueren, E., see Horiot, J.-C., 103  
 van der Schueren, E., see Horiot, J.C., 81  
 van der Schueren, E., see Leunens, G., 169  
 Van der Schueren, E., see Weltens, C., 18  
 van Herk, M., Bel, A., Gilhuijs, K.G.A. and Vijlbrief, R.E.  
   A comprehensive system for the analysis of portal images, 221  
 van Herk, M., see Bel, A., 253  
 van Herk, M., see Gilhuijs, K.G.A., 261  
 van Herk, M. and Williams, P.C.  
   Role of electronic portal imaging in high dose/high precision radiotherapy, 269  
 van Zandwijk, N., see Boersma, L.J., 110  
 Vassal, P., see Troccaz, J., 176  
 Vatnitskij, S., see Kosunen, A., 327  
 Väyrynen, T., see Kosunen, A., 327  
 Verstraete, J., see Leunens, G., 169  
 Vijlbrief, R.E., see van Herk, M., 221  
 Vijlbrief, R.E., see Gilhuijs, K.G.A., 261
- Wagner, J.P., see Carrie, C., 301  
 Wannenmacher, M., see Gademann, G., 205  
 Weltens, C., Leunens, G., Dutreix, A., Cosset, J.M., Eschwege, F. and Van der Schueren, E.  
   Accuracy in mantle field irradiations: irradiated volume and daily dose, 18  
 Weltens, C., see Leunens, G., 169  
 Wilkinson, J.M., see Hounsell, A.R., 192  
 Williams, C., see Dische, S., 287  
 Williams, P.C., see Hounsell, A.R., 192  
 Williams, P.C., see Kirby, M.C., 237  
 Williams, P.C., see van Herk, M., 269  
 Withers, H.R., see Chiang, C.S., 60  
 Woudstra, E., Huizenga, H. and van de Poel, J.A.  
   Possible leakage radiation during malfunctioning of a Sagittaire accelerator, 39
- Yorke, E., see Ling, C.C., 129
- Zackrisson, B., see Karlsson, M., 317



## SUBJECT INDEX

- Accelerated repopulation, 69  
Accelerator, 39  
Acute toxicity, 117  
Adults, 301  
ARCON, 341  
Astrocytes, 60  
Automatic image analysis, 269
- Beam blocks, 184  
Beam-transport, 39  
Biological model, 140  
Biological indices, 165  
Bladder carcinoma, 344  
Bone marrow aplasia, 1  
Bone marrow transplantation, 51  
Brachytherapy, 33  
Brain tumours, 169  
Breathing system, 341  
Build-up region, 308
- Carbogen breathing, 341  
Cavernous hemangioma of the liver, 45  
Chemotherapy, 301  
Chordoma, 27  
Chordomas, 205  
Cisplatin, 352  
Clinical trials, 91  
CNS tolerance, 105  
Compliance, 341  
Computer simulation, 253  
Confidence limits, 69  
Conformal radiotherapy, 117, 176  
Conformal therapy, 129, 167, 192, 197, 219  
Contaminating electrons, 308  
CT assisted planning, 184  
Curve-fitting, 69  
Cyclophosphamide, 51
- 3-D treatment planning, 197  
Decision rules, 253  
Dose intercomparison distributions, 327  
Dose response, 287  
Dose specification, 285  
Dose-effect relations, 110  
Dose-response chordoma, 27  
Dose-volume relationships, 105  
Dosimetry intercomparison, 97  
Dosimetry networks, 97
- Echography, 176  
Energy deposition kernels, 148  
Exit dosimetry, 237  
External beam therapy, 285
- Fractionated radiotherapy, 205
- GFAP, 60  
Growth factors, 1
- HDR stepping source brachytherapy, 358  
Hemopoietic stem cells, 1  
High energy photon beams, 308  
High precision, 205  
High precision radiotherapy, 197  
Hyperfractionation, 27, 355
- Image analysis, 221  
Image correlation, 110  
Immobilization, 197  
In vivo dosimetry, 18, 271, 336  
Inhibitors, 1  
Intra-observer variability, 261  
Intraoperative, 352  
Intraoperative radiation, 347  
Inverse radiotherapy planning, 148  
Irradiation treatment optimization, 244
- Leakage radiation, 39  
Liver neoplasms, 45  
Local control, 129, 344  
Locoregional control, 355  
Low grade gliomas, 205  
Lung, 51
- Mac I, 60  
Mailed dosimetry, 85, 97  
Malfunction, 39  
Mantle field irradiation, 18  
Mathematical models, 105  
Mechanical checks, 91  
Medullablastoma, 301  
Melanoma, 33  
Meningiomas, 205  
Metastases, 352  
Microglial cells, 60  
Modelling, 140  
Multi-leaf collimator, 184, 192, 197, 237, 317
- Multi-leaf indicator, 317  
Multimodal image registration, 244
- Neurinomas, 205  
Non-uniform beams, 148  
Normal tissue dose-volume parameters, 117
- Off-line analysis, 269  
On-line analysis, 269  
Ophthalmology, 33  
Optimization, 140  
Oropharyngeal carcinoma T2 T3 N0 N1, 356  
Output factor, 214
- Pancreas, 347  
Patient positioning, 197  
Patient set-up, 176  
Patient set-up accuracy, 253  
Patient set-up analysis, 261  
Patient set-up verification, 230  
Pelvic radiotherapy, 184  
Portal imaging device (PID), 244  
Portal film, 336  
Portal images, 261  
Portal imaging, 18, 221, 230, 237, 253  
Progenitors, 1  
Prognosis, 301  
Prognostic factors, 344  
Prostatic cancer, 271
- Quality assurance, 18, 85, 91, 97, 169, 230, 271  
Quality assurance cooperative trials, 81  
Quality control, 184, 237, 253
- Racetrack microtron, 317  
Radiation, 60, 81  
Radiation accident, 39  
Radiation field alignment, 230  
Radiation myelopathy, 105  
Radiation therapy, 230, 294, 317  
Radiation treatment planning, 169  
Radiation-induced lung damage, 110  
Radiation therapy, 253  
Radiobiological optimization, 148  
Radiosurgery, 214  
Radiotherapy, 27, 33, 45, 167, 221, 261, 271, 287, 301, 327, 344, 352

- Radiotherapy infrastructure, 97  
Registration, 176  
Repopulation maximum likelihood, 69  
Repositioning, 244  
Requirements for quality assurance, 103  
Ruthenium application, 33
- Seraspenide, 1  
Small field dosimetry, 214  
SPECT ventilation/perfusion, 110  
Spinal cord, 127  
Spinal cord gliomas, 294  
Stereotaxy, 205  
Surface dose, 308  
Surgery, 294
- Survival, 301
- Target absorbed dose, 287  
Target volumes, 169  
TCP, 140  
Testis, 352  
Therapy, 129  
Time dependence, 51  
Time factors, 69  
Time-variable dose rate, 357  
Tissue tolerance, 347  
TL dosimetry, 85  
TMR, 214  
Tomographic scan simulator, 219  
Treatment optimization, 148
- Treatment planning, 140, 192, 271, 327,  
Treatment verification, 221, 336  
Tumour area, 344  
Tumour control, 69  
Tumour control probabilities (TCP),  
140, 165  
Tumour regression, 344
- Uncertainty analysis, 169
- Volume effects, 127
- Whole body irradiation, 51